



## UNITED STATES, DEPARTMENT OF COMMERCE

Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/909,966	08/12/97	HIGUCHI	Y 862.1922

005514 LM02/0430  
FITZPATRICK CELLA HARPER & SCINTO  
30 ROCKEFELLER PLAZA  
NEW YORK NY 10112-3801

EXAMINER

TRAN, D

ART UNIT	PAPER NUMBER
2724	9

DATE MAILED: 04/30/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

<b>Office Action Summary</b>	Application No. <b>08/909,966</b>	Applicant(s) <b>Yuichi Higuchi</b>
	Examiner <b>Douglas Q. Tran</b>	Group Art Unit <b>2724</b>

Responsive to communication(s) filed on \_\_\_\_\_.

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

#### Disposition of Claims

Claim(s) 1-50 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

Claim(s) \_\_\_\_\_ is/are allowed.

Claim(s) 1-50 is/are rejected.

Claim(s) \_\_\_\_\_ is/are objected to.

Claims \_\_\_\_\_ are subject to restriction or election requirement.

#### Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All  Some\*  None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

#### Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2724

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Answer to arguments of Election/Restriction with traverse***

2. Applicant's election with traverse of group 1 in paper No. 8 is acknowledged. Thus, claims 1-50 are examined.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 1, 3-5, 10, 12-14, 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Villalpando (U.S. Patent No. 5,740,368).

As to claim 1, Villalpando teaches:

Art Unit: 2724

- determination means (note 201 in fig. 2) for determining based on a signal indicating that a condition of the printing apparatus has changed if a new condition corresponds to a power-off notice (col. 4, lines 31-32 and 56);

- informing means (note 203 in fig. 2) for supplying information indicating that a power supply is scheduled to be turned off to the host apparatus (i.e., LAN 211 in fig. 2) when the determination apparatus determines that the new condition corresponds to the power-off notice.

As to claim 3, Villalpando teaches:

- the host apparatus is connected via a communication network, and informing means supplies the information to all host apparatus connected (col. 5, lines 53-60).

As to claim 4, Villalpando teaches:

- the determination means includes reception means (i.e., shared memory 1115 in fig. 11 discussed in col. 4, lines 66-67) for receiving a condition change signal indicating that a condition of an engine unit has changed, and condition acquisition means (note 201 in fig. 2 discussed in col. 5, lines 1-2) for acquiring contents of a new condition upon reception of the condition change signal from the engine unit.

As to claim 5, Villalpando teaches:

- the determination means (note 201 in fig. 2) acquires the contents of the new condition using the condition acquisition means, and determines if the contents indicate a power off notice signal.

Art Unit: 2724

As to claims 10 and 12-14, Villalpando teaches steps are performed by apparatus claims 1-5 as indicated above.

As to claim 19, Villalpando teaches the instruction for performing steps of the method claim 10 as indicated above.

5. Claims 21, 26-29, 34-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Sung (U.S. Patent No. 5,700,003).

As to claim 21, Sung teaches:

- determination means (i.e., remaining amount of paper sensing unit 6 in fig. 2) for determining based on a signal indicating that a condition of the printing apparatus has changed if the change in condition corresponds to a change in remaining paper quantity ( col. 5, lines 24-26);

- informing means (i.e., paper thickness input unit 5 in fig. 2) for informing the host apparatus of the change in remaining paper quantity when the determination means determines that the change in condition corresponds to the change in remaining paper quantity (col. 5, lines 31-32).

As to claims 26, Sung teaches:

- determination means (i.e., remaining amount of paper sensing unit 6 in fig. 2) includes reception means (i.e., memory for storing discussed in col. 5, lines 49-50) for receiving a

Art Unit: 2724

condition change signal indicating that a condition of the engine unit has changed, and condition acquisition means (i.e., Paper thickness input unit 5 in fig. 5) for acquiring contents of the change in condition.

As to claim 27, Sung teaches:

- the determination means (i.e., remaining amount of paper sensing unit 6 in fig. 2) determines if the contents of the change in condition acquired by the condition acquisition means correspond to the change in remaining paper quantity.

As to claim 28, Sung teaches:

- when the determination means (i.e., remaining amount of paper sensing unit 6 in fig. 2) determines that the change in condition corresponds to the change in remaining paper quantity, the determination means also determines an actual remaining paper quantity (col. 5, line 59 through col. 6, line 4), and the informing means (i.e., paper thickness input unit 5 in fig. 2) informs the host apparatus of the actual remaining paper quantity.

As to claims 29 and 34-36, Sung teaches methods are performed by the apparatus claims 26-28 as indicated above.

As to claim 37, Sung teaches a program for instructing the method claim 29 as indicated above.

Art Unit: 2724

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 6-9, 11, 15-18, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Villalpando (U.S. Patent No. 5,740,368) in view of Bender et al. (U.S. Patent No. 5,791,790).

As to claim 2, Villalpando teaches the features of claim 1 as indicated above.

However, Villalpando does not explicitly teach means for holding a condition of the print job including information of an incomplete job.

Bender et al. teach:

- condition holding means (i.e., non-volatile memory discussed in col. 8, lines 22-30) for holding a condition of the print job received from the host apparatus, and wherein the information supplied from the informing means ( note NPAP 50 in fig. 2) includes information of an incomplete job held by the condition holding means (col. 4, lines 46-60).

It would have been obvious to one of ordinary skill in the art, in view of Bender et al., to have modified the storage means in the status of print controller in Villalpando. The suggestion for modifying the status of printing controller including memory of Sung would be obvious

Art Unit: 2724

because such a modification would improve the capability and efficiency of the system for communication activities between the host and the printer.

As to claim 11, the combination of Villalpando and Bender et al. teaches step is performed by claim 2 as indicated above.

As to claim 6, Villalpando teaches:

- determination means (note 201 in fig. 2) for determining based on a signal indicating that a condition of the printing apparatus has changed if a new condition corresponds to a power-off notice (col. 4, lines 31-32 and 56).

However, Villalpando does not explicitly teach nonvolatile storage medium and informing means for informing when the power supply is turned on.

Bender et al. teach:

- storage means for storing a condition of the print job from the host apparatus in a nonvolatile storage medium when the determination means determines that the new condition corresponds to a power-off notice condition (col. 4, lines 46-52);  
- informing means (i.e., NPAP Task 50 in fig. 2) for, when the power supply is turned on, supplying information of an incomplete print job to the host apparatus on the basis of the print job condition stored by the storage means (col. 4, lines 53-60) .

It would have been obvious to one of ordinary skill in the art, in view of Bender et al., to have modified the storage means in the status of printing controller in Villalpando. The

Art Unit: 2724

suggestion for modifying the status of printing controller including memory of Sung would be obvious because such a modification would improve the capability and efficiency of the system for communication activities between the host and the printer.

As to claim 7, Villalpando teaches:

- the host apparatus is connected via a communication network, and informing means supplies the information to all host apparatus connected (col. 5, lines 53-60).

As to claim 8, Villalpando teaches:

- the determination means includes reception means (i.e., shared memory 1115 in fig. 11 discussed in col. 4, lines 66-67) for receiving a condition change signal indicating that a condition of an engine unit has changed, and condition acquisition means (note 201 in fig. 2 discussed in col. 5, lines 1-2) for acquiring contents of a new condition upon reception of the condition change signal from the engine unit.

As to claim 9, Villalpando teaches:

- the determination means (note 201 in fig. 2) acquires the contents of the new condition using the condition acquisition means, and determines if the contents indicate a power off notice signal.

As to claims 15-18, the combination of Villalpando and Bender et al. teaches methods are performed by the apparatus claims 6-9 as indicated above.

Art Unit: 2724

As to claim 20, the combination of Villalpando and Bender et al. teaches a program for instructing the method claim 15 as indicated above.

8. Claims 22-25, 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sung (U.S. Patent No. 5,700,003) in view of Sugiyama et al. (U.S. Patent No. 5,859,956).

As to claims 22-25, Sung teaches the features in claim 21 as indicated above. However, Sung does not disclose means informs all host apparatus, registration means and designation means.

Sugiyama et al. teach:

\* informing means (i.e., server 8004 in fig. 75) informs all host apparatus (note 8001 and 8002 in fig. 75) connected of the condition change.  
\* registration means (table ETAB in fig. 76 discussed in col. 68, lines 46-47 and 59-60) for registering print jobs which were sent from the host apparatus and processing of which has not been completed yet, and

- wherein the informing means (i.e., server 8004 in fig. 75) informs host apparatuses as transmission sources of the print jobs which are registered in the registration means of the condition change, and corresponding to data which is being printed among the print jobs registered in the registration means of the condition change (col. 69, lines 58-59 and col. 70, lines 23-27); and

- designation means for designating a destination of the informing means, and

Art Unit: 2724

wherein the informing means informs, in according with the designation by the designation means, all host apparatuses connected, host apparatuses as transmission sources of the print jobs registered in the registration means, or a host apparatus as a transmission source of the print job corresponding to data which is being printed among the print jobs registered in the registration means, of the condition change (col. 70, lines 22-27).

It would have been obvious to one of ordinary skill in the art, in view of Sugiyama et al., to have modified to the status of printing controller of Sung .The suggestion for modifying the status of printing controller of Sung would be obvious because such a modification would improve the capability and efficiency of the system for communication activities between the host and the printer.

As to claims 30-33, the combination of Sung and Sugiyama et al. teaches methods are performed by the apparatus claims 22-25 as indicated above.

9. Claims 38-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama et al. (U.S. Patent No. 5,859,956) in view of Kim et al. (U.S. Patent No. 5,812,745).

As to claim 38, Sugiyama et al. teach:

- storage means (i.e., table ETAB in fig. 76 discussed in col. 68, lines 46-47) for storing condition change items designated by the host apparatus (i.e., the server 8004 in fig. 75).

However, Sugiyama et al. do not explicitly teach determination means, discrimination means and informing means.

Art Unit: 2724

Kim et al. teach:

- determination means (i.e., an engine controller 20 in fig. 1 discussed in col. 2, lines 52-55) for determining, based on a signal indicating that a condition has changed, an item of the condition change;
- discrimination means (i.e., video controller 30 in fig. 1 discussed in col. 2, lines 59-65) for discriminating with reference to the items stored in the storage means if the item determined by the determination means corresponds to one of the items stored in the storage means;
- informing means (i.e., video controller 30 in fig. 1 discussed in col. 4, lines 3-5) for informing the host apparatus that designated the item of the condition change item determined to correspond to the stored item by the discrimination means.

It would have been obvious to one of ordinary skill in the art, in view of Kim et al., to have modified to the status of printing controller of Sugiyama et al.. The suggestion for modifying the status of printing controller of Sugiyama et al. would be obvious because such a modification would improve the capability and efficiency of the system for communication activities between the host and the printer.

As to claim 39, the combination of Sugiyama et al. and Kim et al. teaches:

- storage means (i.e., tables in fig. 53, fig. 70 and fig. 76 in Sugiyama et al.) stores the condition change items in units of types of host apparatuses (fig. 69 and fig. 75 in Sugiyama et al.), the discrimination means refers to the condition chance items stored in the storage means in

Art Unit: 2724

units of types of host apparatus, and the informing means informs the host apparatus of the condition change in units of types of host apparatus.

As to claim 40, Sugiyama et al. teach:

- reception means (i.e., table ETAB in fig. 76) for receiving designations of the condition change items (col. 69, lines 59-61) from the host apparatus (i.e., server 8004 in fig. 75), and wherein the storage means (col. 68, lines 46-47) stores the condition change items received by the storage means in units of types of host apparatus (col. 22-29).

As to claim 41, the combination of Sugiyama et al. and Kim et al. teaches:

Although neither Sugiyama et al. nor Kim et al. explicitly teach the types of host apparatuses include a supervisor who supervises a system including the host apparatus and the printing apparatus, and a normal user other than the supervisor, the printing system of Sugiyama et al. teaches the types of host apparatuses (fig. 69, fig. 75) which can include a supervisor of host apparatus in order to the status of printer of Kim et al. in second portion of table 1 (in col. 3 discussed lines 24-25) is informed the supervisor of host apparatus and a first portion of table is informed to a normal user of host apparatus.

As to claim 42, Kim et al. teach:

- determination means (i.e., an engine controller 20 in fig. 1 discussed in col. 2, lines 52-55) includes reception means (i.e., memory discussed in col. 2, lines 61-65) for receiving a condition change signal indicating that a condition of the engine unit has changed, and condition acquisition means (i.e., video controller 30 in fig. 1 discussed in col. 2, lines 59-61) for acquiring

Art Unit: 2724

contents of the change in condition upon reception of the condition change signal of the engine unit.

As to claim 43, Kim et al. teach:

- determination means (i.e., an engine controller 20 in fig. 1 discussed in col. 2, lines 52-55) determines if the contents of the change in condition acquired by the condition acquisition means correspond to one of the items designated by the host apparatus.

As to claims 44-49, the combination of Sugiyama et al. and Kim et al. teaches the methods are performed by the apparatus claims 38-43 as indicated above.

As to claim 50, the combination of Sugiyama et al. and Kim et al. teaches the program for instructing the method claim 44 as indicated above.

### *Conclusion*

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas Q. Tran whose telephone number is (703) 305-4857 or e-mail address is Douglas.tran@uspto.gov.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Douglas Q. Tran  
Apr. 23, 1999



DAVID K. MOORE  
SUPERVISORY PATENT EXAMINER  
GROUP 2700